

What is claimed is:

1 1. A method of treating a neurological disorder in a human patient which
2 comprises administering to said human patient an effective amount of a composition comprising
3 a polypeptide comprising a sequence substantially equivalent to SEQ ID NO: 2.

1 2. The method of claim 1 wherein the composition further comprises a
2 pharmaceutically acceptable carrier.

1 3. The method of claim 1 wherein the composition is administered orally,
2 transdermally, intravenously, intrasynovially, intramuscularly, intraocularly, intranasally,
3 intrathecally, or topically.

1 4. The method of claim 1 wherein administering the composition is in
2 conjunction with another method of treating said neurological disorder.

1 5. The method of claim 1, wherein the neurological disorder is caused by
2 oxidative stress response in neuronal tissue.

1 6. The method of claim 1, wherein the neurological disorder is caused by the
2 activation of a neuron specific, stress-activated protein kinase.

1 7. The method of claim 6, wherein the protein kinase is c-Jun amino-terminal
2 kinase 3.

1 8. The method of claim 1 wherein the neurological disorder is a disorder
2 selected from dementia, dementia of the Alzheimer's type, bipolar disorders, mood disorder with
3 depressive features, mood disorder with major depressive-like episode, mood disorder with
4 manic features, mood disorder with mixed features, substance-induced mood disorder and mood
5 disorder not otherwise specified (NOS), panic disorder without agoraphobia, panic disorder with
6 agoraphobia, agorathobia without history of panic disorder, social phobia, posttraumatic stress
7 disorder, acute stress disorder, substance-induced anxiety disorder and anxiety disorder not
8 otherwise specified (NOS), dyskinesias and behavioral manifestations of mental retardation,
9 conduct disorder and autistic disorder.

1 9. The method of claim 8, wherein dementia is selected from the group
2 consisting of vascular dementia, dementia due to HIV disease, dementia due to head trauma,

dementia due to Parkinson's disease, dementia due to Huntington's disease, dementia due to Pick's disease, dementia due to Creutzfeldt-Jakob disease, substance-induced persisting dementia, dementia due to multiple etiologies and dementia not otherwise specified (NOS).

10. The method of claim 8, wherein said dementia is dementia of the Alzheimer's type.

11. The method of claim 10, wherein dementia of the Alzheimer's type is selected from the group consisting of dementia of the Alzheimer's type with early onset uncomplicated, dementia of the Alzheimer's type with early onset with delusions, dementia of the Alzheimer's type with early onset with depressed mood, dementia of the Alzheimer's type with late onset uncomplicated, dementia of the Alzheimer's type with late onset with delusions and dementia of the Alzheimer's type with late onset with depressed mood.

12. The method of claim 1, wherein the composition is administered in a targeted drug delivery system.

13. The method of claim 12, wherein the targeted drug delivery system is a liposome coated with an antibody that specifically targets neuronal tissue.

14. A method of treating Alzheimer's disease, stroke, amyotrophic lateral sclerosis, age associated memory impairment or Parkinson's disease in a human subject, the method comprising administering to said human an effective amount of a composition comprising a polynucleotide having a sequence that is substantially equivalent to SEQ ID NO: 1.

15. The method of claim 14, wherein the composition is administered to the subject's cells using a recombinant expression vector that comprises a sequence substantially equivalent to SEQ ID NO: 1.

16. The method of claim 15, wherein administering the composition further comprises:
removing stem cells from a subject's bone marrow;
introducing the recombinant expression vector into the removed stem cells; and
re-introducing the stem cells into the subject's bone marrow.

17. A method of treating a neurological disease in a human subject selected from the group consisting of Alzheimer's disease, stroke, amyotrophic lateral sclerosis, age

3 associated memory impairment and Parkinson's disease, the method comprising administering to
4 said human an effective amount of a composition comprising a polypeptide having a sequence
5 that is substantially equivalent to SEQ ID NO: 2.

1 18. The method of claim 17 wherein the composition further comprises a
2 pharmaceutically acceptable carrier.

1 19. The method of claim 17 wherein the composition is administered orally,
2 transdermally, intravenously, intrasynovially, intramuscularly, intraocularly, intranasally,
3 intrathecally, or topically.

1 20. The method of claim 17 wherein the method is used in conjunction with
2 another method of treating said neurological disorder.

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